

HOOPER WATER IMPROVEMENT DISTRICT



CAPITAL FACILITIES PLAN AND IMPACT FEE FACILITIES PLAN, AMENDED 2022

MANAGER

COLE ALLEN

Cole J. Allen
SIGNATURE

2 October 2024

DATE

BOARD OF DIRECTORS

CHAIRMAN	MARVIN ZAUGG
VICE CHAIR	KORRY GREEN
BOARD CLERK	WAYNE HAWS
TRUSTEE	DENNIS DALLINGA
TRUSTEE	COLE TUBBS

PREPARED WITH THE ASSISTANCE OF:



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I. Narrative

Recent experienced construction costs have proven to be greater than those estimated in the Hooper Water Improvement District's Capital Facilities Plan and Impact Fee Facilities Plan (IFFP) adopted in 2021. The purpose of this Amendment is primarily to adjust estimated project costs so that the District's Impact Fee Analysis can also be modified. The modification will help the District to collect sufficient impact fees to pay for the actual cost of impact fee-eligible projects.

A secondary purpose for this Amendment is to update the District's Capital Facilities Plan by documenting changes in both impact-fee-eligible-project- and non-impact-fee-eligible-project-priorities that the District would like to undertake during the next 10 years.

No changes in either existing or proposed levels of service have been made to the IFFP.

The following changes have been made to the District's IFFP through this 2022 Amendment.

SUMMARY OF AMENDED ITEMS

Item in 2021 IFFP	Page in 2021 IFFP	Replaced by Amendment 2022	Page in 2022 Amendment
Table 1 HWID 2021 – 2030 IFFP PROJECT PLANNING SUMMARY	4	Table 1 HWID 10-Year Improvement Plan – Amended 2022 Summary	2
Table 19 HWID 10-Year Improvement Plan -2021-2030 Draft	20-22	Table 19 HWID 10-Year Improvement Plan – Amended 2022	3-5
Exhibit A.1 Construction Cost Estimate	A.1.1-A.1.3	Exhibit A.1, Amendment 2022 Construction Cost Estimate	A.1.1-A.1.3
Project Planning List Through Buildout	A.9.1-A.9.3	Project Planning List Through Buildout	A.9.1-A.9.2
Proposed Buildout System, HWID IFFP 2021	Map B3	Proposed Buildout System, HWID IFFP 2021, Amended 2022	Map B3

II. Amendment**TABLE 1 - HWID 10-YEAR IMPROVEMENT PLAN SUMMARY – AMENDED 2022**

Project Description	Estimated Project Cost	Estimated Impact Fee-Eligible Project Cost	Estimated Non-Impact Fee-Eligible Project Cost
Subtotal: Source	\$11,339,050	\$9,839,050	\$1,500,000
Subtotal: Storage	\$5,878,534	\$3,460,000	\$2,418,534
Subtotal: Distribution	\$25,870,700	\$19,858,022	\$6,012,678
	\$43,088,284	\$33,157,072	\$9,931,212

Table 19 - HWID 10-Year Improvement Plan – Amended 2022

2021 Project Number	Estimated Project Year	Project Description	Quantity	Estimated Unit Cost	Estimated Project Cost	% Impact Fee Eligible	Estimated Impact Fee-Eligible Project Cost	Estimated Non-Impact Fee-Eligible Project Cost
56	2025	Property Acquisition for New Well: Site to be determined (Davis County Site)	1 EA	\$500,000	\$500,000	100%	\$500,000	\$0
Increased cost for 11	2022-2023	Test Wells 5100 S & 5500 W Properties	1 EA	\$1,500,000	\$1,500,000	100%	\$1,500,000	\$0
11	2023-2024	New Well at 5100 S or 5500 W w/backup power, booster pumps and treatment	1,500 GPM	\$4,226	\$6,339,050	100%	\$6,339,050	\$0
New 16.5	2025	New Office Site at 5500 W (Fowers) parcel	1 EA	\$3,000,000	\$3,000,000	50%	\$1,500,000	\$1,500,000
Subtotal: Source					\$11,339,050		\$9,839,050	\$1,500,000
M4	2022	Tank Inspection, All 4 tanks: clean and inspect, not IF eligible, plan in annual budget	1 EA	\$15,000	\$15,000	0%	\$0	\$15,000
M1	2023	Tank Maintenance, 4000 S: full blast, recoat, safety (based on 2022 inspection recommendations), mixer	1 EA	\$1,079,630	\$1,079,630	0%	\$0	\$1,079,630
M2	2024	Tank Maintenance, North 2MG tank: full blast, recoat, safety (based on 2022 inspection recommendations), mixer	1 EA	\$1,243,904	\$1,243,904	0%	\$0	\$1,243,904
M3	2024	Tank Maintenance, South 2MG tank: mixer	1 EA	\$80,000	\$80,000	0%	\$0	\$80,000
12	2024	Ground Level Tank at 5100 S or 5500 W Well Site	1,000,000 GAL	\$3.46	\$3,460,000	100%	\$3,460,000	\$0
Subtotal: Storage					\$5,878,534		\$3,460,000	\$2,418,534
29	2022/2023	12 In. Pipe, 4500 W, 700 S to 200 S (UDOT)	2,600 LF	\$543	\$1,411,800	100%	\$1,411,800	\$0
28	2023	12 In. Pipe, 4290 W, 920 S to 700 S (through Development), less 8" req'd for fire flow; 8" by developer	1,200 LF	\$446	\$535,200	42%	\$224,784	\$310,416
9	2023	8 In. Pipe, 5600 S, 3500 W to 3450 W to replace existing 2" (UDOT, Based on UDOT timing)	450 LF	\$433	\$194,850	0%	\$0	\$194,850
23	2023	12 In. Pipe, 200 S, 4500 W to Cold Springs Rd. Back out 8" installed by West Point for Public Works Facility	2,550 LF	\$446	\$1,137,300	42%	\$477,666	\$659,634
31	2024	12 In. Pipe, 4500 W, 200 S to 300 N (UDOT)	2,700 LF	\$543	\$1,466,100	100%	\$1,466,100	\$0

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13	2024	16 In. Pipe, 5100 S or 5500 W Well to distribution system tie-in	800 LF	\$686	\$548,800	100%	\$548,800	\$0
43	2025	8 In. Pipe, 5800 S, 5900 W to 6300 W and 6000 W, 5700 S to 5800 S (Fire Flow)	3,350 LF	\$337	\$1,128,950	0%	\$0	\$1,128,950
32	2025	12 In. Pipe, 4500 W, 300 N to 800 N (UDOT)	2,600 LF	\$543	\$1,411,800	100%	\$1,411,800	\$0
33	2026	12 In. Pipe, 4500 W, 800 N to 1300 N (UDOT)	2,650 LF	\$543	\$1,438,950	100%	\$1,438,950	\$0
35	2027	12 In. Pipe, 4500 W, 1300 N to 1800 N (UDOT)	2,750 LF	\$543	\$1,493,250	100%	\$1,493,250	\$0
New 27.5	2027	8 in. Pipe, 700 S, 4000 W to 3600 W	1,800 LF	\$337	\$606,600	100%	\$606,600	\$0
M5	2028	8 in. Pipe, 4300 W, 5500 S to end of line on 6000 W, to replace spots of 4 in. line	3,750 LF	\$337	\$1,263,750	0%	\$0	\$1,263,750
5	2028	Upsize 16" HDPE through intersection to 18" HDPE (Unique cost est., not in Appendix)	240 LF	\$1,200	\$288,000	100%	\$288,000	\$0
6	2029	16 In. Pipe, 3500 W, 4800 S to 5500 South (UDOT)	4,550 LF	\$686	\$3,121,300	100%	\$3,121,300	\$0
47	2030	10 In. Pipe, 5000 W, 1800 N to ~1200 N	3,200 LF	\$413	\$1,321,600	100%	\$1,321,600	\$0
48	2030	10 In. Pipe, 5000 W, ~1100 N to 800 N	1,850 LF	\$337	\$623,450	100%	\$623,450	\$0
49	2031	12 In. Pipe, 5000 W, 800 N to 300 N	2,650 LF	\$446	\$1,181,900	100%	\$1,181,900	\$0
60	2031	10 In. Pipe, 7100 W, 5900 S (Weber Co.) to 2425 N (Davis Co), backout cost of 8" needed at present	2,700 LF	\$413	\$1,115,100	37%	\$412,587	\$702,513
61	2031	10 In. Pipe, 2425 N, 6500 W to 6000 W	2,700 LF	\$413	\$1,115,100		\$0	\$1,115,100
44	2031	10 In. Pipe, 6300 W, 5900 S (Weber Co.) to 2425 N (Davis Co)	2,700 LF	\$413	\$1,115,100	100%	\$1,115,100	\$0
45	2031	10 In. Pipe, 6300 W, 2425 N to 1925 N	2,750 LF	\$413	\$1,135,750	100%	\$1,135,750	\$0

2021 Project Number	Estimated Project Year	Project Description	Quantity	Estimated Unit Cost	Estimated Project Cost	% Impact Fee Eligible	Estimated Impact Fee-Eligible Project Cost	Estimated Non-Impact Fee-Eligible Project Cost
34	2031	12 In. Pipe, 1300 N, 5000 W to 4500 W	2,700 LF	\$446	\$1,204,200	100%	\$1,204,200	\$0
46	2031	10 In. Pipe, 1925 N, 5000 W to 5500 W, back out 8 In. cost needed at present	2,450 LF	\$413	\$1,011,850	37%	\$374,385	\$637,465
Subtotal: Distribution					\$25,870,700		\$19,858,022	\$6,012,678
2022-2031 Estimated Project Costs					\$43,088,284		\$33,157,072	\$9,931,212

-----End of IFFP-----

Appendix A

EXHIBITS, AMENDED 2022

- A.1 Construction Cost Estimates**
- A.2 Weber Fire District Flow and Duration Requirements
- A.3 International Fire Code Table B105.1(1)
- A.4 Estimated Growth
- A.5 Estimated Water Rights Demand
- A.6 Estimated Source Delivery Demand
- A.7 Estimated Storage Demand
- A.8 Annexation Policy July 16, 2019
- A.9 Project Planning List Through Buildout**

Hooper Water Improvement District
Culinary Water Capital Facilities and Impact Fee Facilities Plan 2021, AMENDED 2022

Construction Cost Estimates

Description	Quantity	Quantity per foot of pipe	unit price	unit	Total Cost per foot of pipe	Total Cost per foot of pipe (non-UDOT)
8" C-900 PVC DR18	1	1	\$55	lf	\$55	\$55
8" Gate Valves	2 per 500 ft	0.004	\$4,400	ea	\$18	\$18
Fire Hydrant Assembly	1 per 500 ft	0.002	\$11,200	ea	\$22	\$22
Connections	1 per 1,000 ft	0.001	\$10,500	ea	\$11	\$9
Pipe Bedding sand		0.708	\$20	ton	\$14	\$14
Granular fill		0.563	\$22	ton	\$12	\$12
Asphalt Patch		0.207	\$279	ton	\$58	\$34
Mill and fill		0.084	\$234	ton	\$20	\$14
Crossings and Loops	1 per 750 ft	0.001	\$29,889	ea	\$40	\$29
Test and Chlorinate	1 per project (1200 ft)	0.001	\$2,000	ea	\$2	\$2
Signage and Flagging	1 per project (1200 ft)	0.001	\$77,316	ea	\$64	\$33
Service Connections	1 per 200 ft	0.005	\$3,616	ea	\$18	\$18
Construction Subtotal					\$333	\$259
Contingency 20% of construction subtotal					\$67	\$52
Engineering and Construction Management 10% of construction subtotal					\$33	\$26
Cost of pipe items, \$/ft = sum of red text:	\$230	\$185	UDOT/non-UDOT		\$433	\$337
Half of other costs, \$/ft = (sum of blue items)*0.5:	\$102	\$76	UDOT/non-UDOT			

Description	Quantity	Quantity per foot of pipe	unit price	unit	Total Cost per foot of pipe	Total Cost per foot of pipe (non-UDOT)
10" C-900 PVC	1	1	\$100	lf	\$100	\$100
10" Gate Valves	2 per 500 ft	0.004	\$6,600	ea	\$26	\$26
Fire Hydrant Assembly	1 per 500 ft	0.002	\$11,200	ea	\$22	\$22
Connections	1 per 1,000 ft	0.001	\$11,500	ea	\$12	\$10
Pipe Bedding sand		0.708	\$20	ton	\$14	\$14
Granular fill		0.563	\$22	ton	\$12	\$12
Asphalt Patch		0.207	\$279	ton	\$58	\$34
Mill and fill		0.084	\$234	ton	\$20	\$14
Crossings and Loops	1 per 750 ft	0.001	\$31,889	ea	\$43	\$31
Test and Chlorinate	1 per project (1200 ft)	0.001	\$2,250	ea	\$2	\$2
Signage and Flagging	1 per project (1200 ft)	0.001	\$77,316	ea	\$64	\$33
Service Connections	1 per 200 ft	0.005	\$3,816	ea	\$19	\$19
Construction Subtotal					\$392	\$318
Contingency 20% of construction subtotal					\$78	\$64
Engineering and Construction Management 10% of construction subtotal					\$39	\$32
When 8-inch is needed at present, subtract 8-inch pipe cost, \$230 and one half of other project costs, \$102.					\$510	\$413
Resulting IFFP cost for 10" line when 8" line is needed at present, as % of 10" total cost and in \$:	35%				\$178	\$152
						37%

Description	Quantity	Quantity per foot of pipe	unit price	unit	Total Cost per foot of pipe	Total Cost per foot of pipe (non-UDOT)
12" C-900 PVC	1	1	\$116	lf	\$116	\$116
12" Butterfly Valves	2 per 500 ft	0.004	\$7,700	ea	\$31	\$31
Fire Hydrant Assembly	1 per 500 ft	0.002	\$11,200	ea	\$22	\$22
Connections	1 per 1,000 ft	0.001	\$12,500	ea	\$13	\$11
Pipe Bedding sand		0.708	\$20	ton	\$14	\$14
Granular fill		0.563	\$22	ton	\$12	\$12
Asphalt Patch		0.207	\$279	ton	\$58	\$34
Mill and fill		0.084	\$234	ton	\$20	\$14
Crossings and Loops	1 per 750 ft	0.001	\$33,889	ea	\$45	\$34
Test and Chlorinate	1 per project (1200 ft)	0.001	\$2,500	ea	\$2	\$2
Signage and Flagging	1 per project (1200 ft)	0.001	\$77,316	ea	\$64	\$33
Service Connections	1 per 200 ft	0.005	\$4,016	ea	\$20	\$20
Construction Subtotal					\$418	\$343
Contingency 20% of construction subtotal					\$84	\$69
Engineering and Construction Management 10% of construction subtotal					\$42	\$34
When 8-inch is needed at present, subtract 8-inch pipe cost, \$230 and one half of other project costs, \$102.					\$543	\$446
Resulting IFFP cost for 12" line when 8" line is needed at present, as % of 10" total cost and in \$:	39%				\$211	\$185
						42%

Hooper Water Improvement District
Culinary Water Capital Facilities and Impact Fee Facilities Plan 2021, AMENDED 2022

Construction Cost Estimates

Description	Quantity	Quantity per foot of pipe	unit price	unit	Total Cost per foot of pipe	Total Cost per foot of pipe (non-UDOT)
14" C-900 PVC	1	1	\$150	lf	\$150	\$150
14" Butterfly Valves	2 per 500 ft	0.004	\$9,108	ea	\$36	\$36
Fire Hydrant Assembly	1 per 500 ft	0.002	\$11,600	ea	\$23	\$23
Connections	1 per 1,000 ft	0.001	\$14,000	ea	\$14	\$12
Pipe Bedding sand		0.708	\$20	ton	\$14	\$14
Granular fill		0.563	\$22	ton	\$12	\$12
Asphalt Patch		0.207	\$279	ton	\$58	\$34
Mill and fill		0.084	\$279	ton	\$23	\$14
Crossings and Loops	1 per 750 ft	0.001	\$35,889	ea	\$48	\$37
Test and Chlorinate	1 per project (1200 ft)	0.001	\$2,750	ea	\$2	\$2
Signage and Flagging	1 per project (1200 ft)	0.001	\$77,316	ea	\$64	\$33
Service Connections	1 per 200 ft	0.005	\$4,266	ea	\$21	\$21
Construction Subtotal					\$467	\$390
Contingency 20% of construction subtotal					\$93	\$78
Engineering and Construction Management 10% of construction subtotal					\$47	\$39
					\$608	\$506

Description	Quantity	Quantity per foot of pipe	unit price	unit	Total Cost per foot of pipe	Total Cost per foot of pipe (non-UDOT)
16" C-900 PVC	1	1	\$195	lf	\$195	\$195
16" Butterfly Valves	2 per 500 ft	0.004	\$11,286	ea	\$45	\$45
Fire Hydrant Assembly	1 per 500 ft	0.002	\$12,000	ea	\$24	\$24
Connections	1 per 1,000 ft	0.001	\$15,500	ea	\$16	\$14
Pipe Bedding sand		0.707688	\$20	ton	\$14	\$14
Granular fill		0.5625	\$22	ton	\$12	\$12
Asphalt Patch		0.206667	\$279	ton	\$58	\$34
Mill and fill		0.083958	\$279	ton	\$23	\$14
Crossings and Loops	1 per 750 ft	0.001333	\$37,889	ea	\$51	\$39
Test and Chlorinate	1 per project (1200 ft)	0.000833	\$3,000	ea	\$3	\$3
Signage and Flagging	1 per project (1200 ft)	0.000833	\$77,316	ea	\$64	\$33
Service Connections	1 per 200 ft	0.005	\$4,516	ea	\$23	\$23
Construction Subtotal					\$527	\$450
Contingency 20% of construction subtotal					\$105	\$90
Engineering and Construction Management 10% of construction subtotal					\$53	\$45
					\$686	\$584

Description (UTA trail corridor)	Quantity	Quantity per foot of pipe	unit price	unit	Total Cost per foot of pipe
20" IPS DR11 PE 4710		1	\$428	lf	\$428
20" Butterfly Valves with adapters	2 per 500 ft	0.004	\$18,480	ea	\$74
Connections	1 per 500 ft	0.002	\$20,000	ea	\$40
Pipe Bedding sand		1.563	\$20	ton	\$31
Granular fill		1.800	\$22	ton	\$40
UTA Fees	1 per project (1300 ft)	0.001	\$15,000	ea	\$12
Crossings and Loops	1 per 750 ft	0.001	\$50,000	ea	\$67
Test and Chlorinate	1 per project (1300 ft)	0.001	\$3,250	ea	\$3
Construction Subtotal					\$693
Contingency 20% of construction subtotal					\$139
Engineering and Construction Management 10% of construction subtotal					\$69
					\$902

Hooper Water Improvement District
Culinary Water Capital Facilities and Impact Fee Facilities Plan 2021, AMENDED 2022

Construction Cost Estimates

Source Capacity

Well (antic. 735'x18"): Avg of TWWWID 900 S (575'x18") and Well 2 (895'x18"), ca 2016 x 2 inflation +7% eng	\$1,768,766
Well house: avg of TWWWID 900 S and Well 2, ca. 2016 x 1.5 inflation +7% eng	\$603,591
Well total:	\$2,372,357
Booster: Based on Well #1 booster station ca 2017; pumps, HVAC, Elect., Meter vault, 50% building x 1.5 inflation	\$529,998
Treatment: 125% of Well #2 filter project ca 2019, incl. pilot study and eng., backup generator, CL2 generator	\$4,029,784

Storage Capacity

Tank - Crimson Ridge ca 2022	0.22 MG	\$2.75
Tank - Well #1 ca 2017	0.11 MG	\$3.81
Tank - TWWWID ca 2015	3.00 MG	\$1.57
Tank - Pole Patch ca 2014	0.11 MG	\$1.69
Tank - Cobble Creek ca 2009	0.01 MG	\$4.35
Tank - Liberty Pipeline ca 2006	0.50 MG	\$1.35
Tank - West Point ca 2005	1.00 MG	\$0.63
Tank Average Cost Estimate x 1.5 inflation		\$3.46

Hooper Water Improvement District
Culinary Water Capital Facilities and Impact Fee Facilities Plan 2021, Amended 2022

HWID 10-Year Improvement Plan – Amendment, 2022

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Increased cost for 11	2022-2023	Test Wells 5100 S & 5500 W Properties	1 EA	\$1,500,000	\$1,500,000	100%	\$1,500,000	\$0
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M1	2023	Tank Maintenance, 4000 S: full blast, recoat, safety (based on 2022 inspection recommendations), mixer	1 EA	\$1,079,630	\$1,079,630	0%	\$0	\$1,079,630
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34	2031	12 In. Pipe, 1300 N, 5000 W to 4500 W	2,700 LF	\$446	\$1,204,200	100%	\$1,204,200	\$0
46	2031	10 In. Pipe, 1925 N, 5000 W to 5500 W, back out 8 In. cost needed at present	2,450 LF	\$413	\$1,011,850	37%	\$374,385	\$637,465
Subtotal: Distribution					\$25,870,700		\$19,858,022	\$6,012,678
2022-2031 Estimated Project Costs					\$43,088,284		\$33,157,072	\$9,931,212

Hooper Water Improvement District
Culinary Water Capital Facilities and Impact Fee Facilities Plan 2021, Amended 2022

2021 Project Number	Estimated Project Year	Project Description	Quantity	Estimated Unit Cost	Estimated Project Cost	% Impact Fee Eligible	Estimated Impact Fee-Eligible Project Cost	Estimated Non-Impact Fee-Eligible Project Cost
22		16 In. Pipe, Well #3 to 1800 N tie-in (UDOT)	300 LF	\$686	\$205,800	100%	\$205,800	\$0
19		12 In. Pipe, 1800 N, Well #3 east to 12" (UDOT)	500 LF	\$543	\$271,500	100%	\$271,500	\$0
1		16 In. Pipe, Base of 4000 S tank to 12" between tanks, reconfigure piping in road	200 LF	\$584	\$116,800	100%	\$116,800	\$0
2		Tank at Vineyard Site	2,000,000 GAL	\$3.46	\$6,920,000	100%	\$6,920,000	\$0
3		New Well at Vineyard Site w backup power and treatment	1,500 GPM	\$4,268	\$6,402,141	100%	\$6,402,141	\$0
4		20 In. Pipe, West Park to Vineyard Site	1,700 LF	\$902	\$1,533,400	100%	\$1,533,400	\$0
7		14 In. Pipe, Well #1 to 3500 W through District property	450 LF	\$506	\$227,700	100%	\$227,700	\$0
8		16 In. Pipe, 5500 S, Well #1 to 3500 W	650 LF	\$584	\$379,600	100%	\$379,600	\$0
10		8 In. Pipe, 4950 S, 4700 W to dead end if no future loop is made: upsize is for purpose of improving FF	1,750 LF	\$337	\$589,750	0%	\$0	\$589,750
14		8 In. Pipe, 5850 S from 5100 W to dead end	1,350 LF	\$337	\$454,950	0%	\$0	\$454,950
16		12 In. Pipe, 4600 S, 5100 W to 5500 W	2,750 LF	\$446	\$1,226,500	100%	\$1,226,500	\$0
17		12 In. Pipe, 5900 S, 5500 W to canal, backout cost of 8" needed at present for FF	1,375 LF	\$446	\$613,250	39%	\$239,168	\$374,082
18		12 In. Pipe, 5900 S, canal to 5100 W	1,375 LF	\$446	\$613,250	100%	\$613,250	\$0
20		New wellhouse at Well #3 w backup power, booster pumps and treatment	1,500 GPM	\$4,621	\$6,932,139	100%	\$6,932,139	\$0
21		Ground Level Tank at Well #3	1,000,000 GAL	\$3.46	\$3,460,000	100%	\$3,460,000	\$0
25		New Well at Cold Springs Road site w backup power, booster pumps and treatment	1,500 GPM	\$4,621	\$6,932,139	100%	\$6,932,139	\$0
26		Ground Level Tank at Cold Springs Well	1,000,000 GAL	\$3.46	\$3,460,000	100%	\$3,460,000	\$0
27		16 In. Pipe, Cold Springs Well to Cold Springs Road tie-in	700 LF	\$584	\$408,800	100%	\$408,800	\$0
30		8 In. Pipe, 200 S, 4500 W west to dead end if no future loop is made: upsize is for purpose of improving FF	650 LF	\$337	\$248	0%	\$0	\$248
36		12 In. Pipe, 5900 S, 5900 W to 5500 W	2,700 LF	\$446	\$1,204,200	100%	\$1,204,200	\$0
37		12 In. Pipe, 5500 W 4600 S to 5100 S	2,700 LF	\$446	\$1,204,200	100%	\$1,204,200	\$0
38		12 In. Pipe, 4600 S, 5900 W to 5500 W	2,750 LF	\$446	\$1,226,500	100%	\$1,226,500	\$0
41		8 In. Pipe, 5900 W, 4000 S north to dead end	2,300 LF	\$446	\$1,025,800	0%	\$0	\$1,025,800
42		12 In. Pipe, 5500 S, 5900 W to 6300 W	2,700 LF	\$446	\$1,204,200	100%	\$1,204,200	\$0
50		12 In. Pipe, 5500 S, 6300 W to 6700 W	2,700 LF	\$446	\$1,204,200	100%	\$1,204,200	\$0
51		8 In. Pipe, 4800 S, 6300 W west to dead end if no future loop is made: upsize is for purpose of improving FF	1,360 LF	\$337	\$458,320	0%	\$0	\$458,320
52		8 In. Pipe, 6700 W, 4350 S to 4600 S	1,600 LF	\$337	\$539,200	0%	\$0	\$539,200
57		New Well at 7100 West site w backup power, booster pumps and treatment	1,500 GPM	\$4,621	\$6,932,139	100%	\$6,932,139	\$0
58		Ground Level Tank at 7100 W well	1,000,000 GAL	\$3.46	\$3,460,000	100%	\$3,460,000	\$0
59		16 In. Pipe, 7100 W Well to 5500 S tie-in	500 LF	\$584	\$292,000	100%	\$292,000	\$0
62		10 In. Pipe, 5500 S, 7100 W to 7500 W	2,750 LF	\$413	\$1,135,750	100%	\$1,135,750	\$0
65		8 In. Pipe, 7500 W, Bird Refuge to 5100 S	2,750 LF	\$337	\$926,750	0%	\$0	\$926,750
66		8 In. Pipe, 7500 W, 5100 S to 5500 S	2,750 LF	\$337	\$926,750	0%	\$0	\$926,750
67		8 In. Pipe, 7500 W, 5500 S to 5700 S	1,000 LF	\$337	\$337,000	0%	\$0	\$337,000
M6		8 In. Pipe, 4700 W, South of 4800 S Intersection	350 LF	\$337	\$117,950	0%	\$0	\$117,950
M8		8 In. Pipe, 5600 S, 5900 W to 6250 W	2,350 LF	\$337	\$791,950	0%	\$0	\$791,950
M9		8 In. Pipe, 5700 S, 5900 W to 6000 W and 6100 W to 6300 W	2,050 LF	\$337	\$690,850	0%	\$0	\$690,850

Appendix B

MAPS, AMENDED 2022

- B.1 Projected Land Use at Buildout
- B.2 Existing System
- B.3 Proposed Buildout System

Master Plan Map, 2022-2031



 COMPLETED PROJECT

0 800 1,600 3,200 4,800 6,400 Feet



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